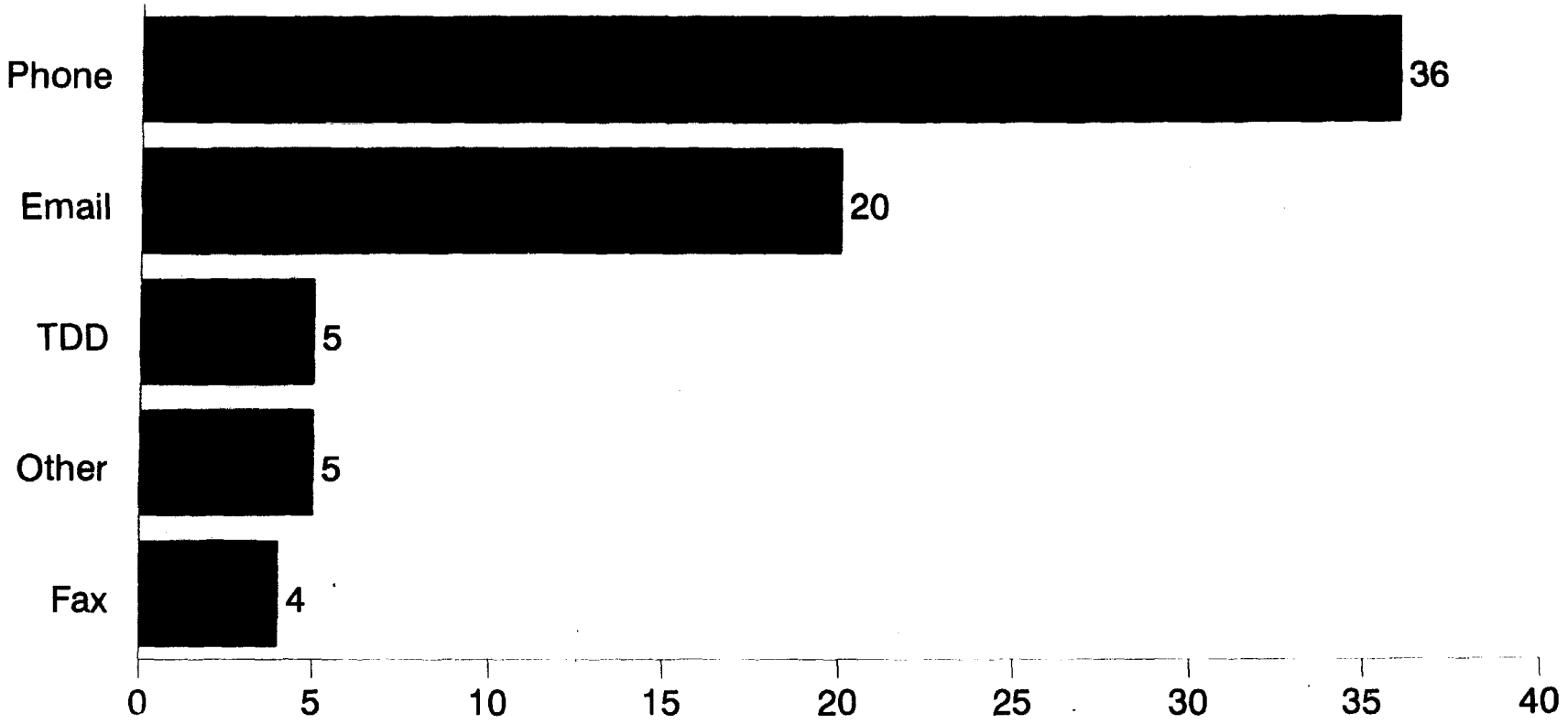
APPENDIX E

WHAT IS PREFERRED BY PERSONS WITH SPEECH DISABILITIES

What Is Preferred By Persons With Speech Disabilities



Numbers indicate actual number of respondents who checked off what type of means of communication they preferred. Only one response was permitted per respondent. (N = 70)

APPENDIX F

FUNDING SOURCES FOR AAC FOR CHILDREN WITH SEVERE DISABILITIES

and the pie chart

HOW AAC WAS PAID FOR BY CHILDREN WITH SEVERE DISABILITIES

FUNDING SOURCE FOR AAC EQUIPMENT FOR RESPONDENTS WITH SEVERE DISABILITIES LESS THAN AGE 21 IN THE USER NEEDS SURVEY

Thirty-two parents of individuals of ages less than 21 responded to a request to participate in a survey on how persons with severe speech and physical disability utilize electronic communication devices (i.e., voice based telephony, faxing and email communication). The survey request was distributed broadly via several networks, including Hear Our Voices, a national consumer group of persons who use Augmentative & Alternative Communication (AAC), to UCPA affiliates with speech programs, and to other individuals in the speech-disabled community who indicated they could pass the survey along to users of AAC devices.

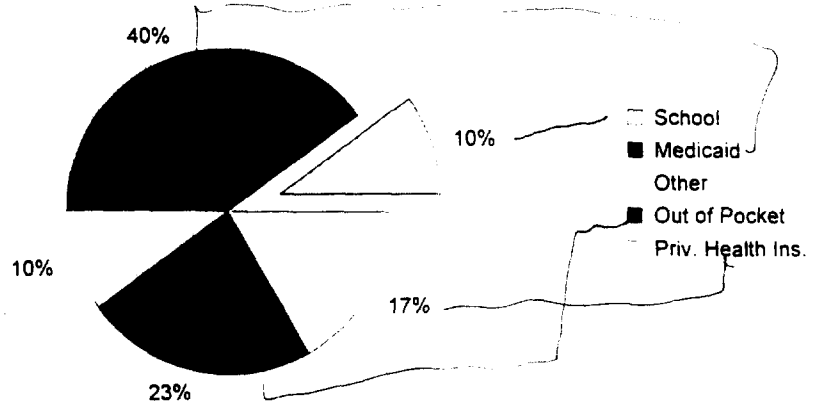
These children, whose parents responded on their behalf, are individuals with severe disabilities requiring multiple supports, including personal assistance and many items of technology. This snapshot counts the primary funding source of the current AAC device.

FINDINGS

As the analysis on funding sources for AAC for children was conducted prior to receipt of all survey responses, only thirty records were evaluated.

Only three of the thirty children had their AAC device paid for by an education authority as reported by the parent (a rate of only 10 percent). The largest source of funding for AAC devices was Medicaid which provided 40% of respondents the primary funding for their AAC device (11 of the thirty). A surprising number of families, or 23 percent, spent out-of-pocket funds for these devices, with private health insurance covering 17 percent of AAC users' devices. 10 percent had a device paid through another source(e.g., MR/DD).

How AAC Was Paid For By Children With Severe Disabilities



N = 30

"Even though my daughter J. got authorization of $13,000 from [the state] Medicaid to pay for an augmentative Communication System last April (1995) She still does not have the system because we need even yet more money to pay for training. The vendor is holding it hostage and won't deliver it until we get $7,000 more." --Comment by a parent of child with cerebral palsy.

APPENDIX G

UCPA COMMENTS TO U.S. SECRETARY OF EDUCATION, RICHARD W. RILEY, ON THE NATIONAL TECHNOLOGY PLAN IN EDUCATION

July 16, 1995

Richard W. Riley, Secretary of Education
U.S. Department of Education
600 Independence Avenue, S.W.
Washington, DC 20202

cc: Linda H. Roberts, Special Advisor on Education Technology

RE: National Technology Plan

Dear Secretary and Department:

United Cerebral Palsy Associations (UCPA) is pleased to offer comments and recommendations on the critical need for the national technology plan you are developing to address the needs of children with disabilities and their families.

Students with disabilities face significant bureaucratic, attitudinal and financing barriers to accessing appropriate technology tools, settings and supports needed to reach their educational goals. Of critical concern to UCPA is that more than two-thirds of individuals with cerebral palsy have functional speech and motor limitations which directly impacts their participation and interaction in classrooms, social settings and in other arenas that typically developing children take for granted. In addition, there are thousands of other students with varying degrees of functional limitations in vision, hearing, speech, motor and cognitive abilities or for whom manipulation of information is difficult and for whom access to educational and assistive technology is paramount.

Technology in education more and more means 'information technology' so it is essential to address the needs of students with disabilities **at the outset** and **as a priority** within the national technology plan as it addresses education and related training and employment growth. **It is clear that by 2010 the majority of jobs will require computer-related skills; therefore, it is paramount that students with disabilities have access to the same resources as students without disabilities in becoming skilled at using new technologies.**

It is also very clear that new information and electronics communications technologies will transform the content and conduct of work locally, regionally, nationally and globally. Therefore the technology accessibility needs of students with the full range of functional disabilities must be considered in any technology development initiatives directed to the educational infrastructure that emphasize employment as an outcome.

Firstly, for students with disabilities, any technology development in the educational infrastructure should seek to enhance opportunities for employment for students with disabilities long before they graduate or leave secondary education. Secondly, technology development should also ensure the sharing of the benefits of the increased knowledge and learning that these technologies make possible in the classroom, in libraries and other loci that are information resources, including through other student activities for students with disabilities. These two goals should be clearly stated in the national technology plan.

Our comments attached include three approaches and a discussion of issues related to students with disabilities in regard to the issues of *Access and Equity, Planning and Financing the School-Related Technology Infrastructure*, in *Professional Development*, and in *Software and Content*. The Americans With Disabilities Act (ADA), Sections 504 and 508 of the Rehabilitation Act, and the Individuals with Disabilities Education Act (IDEA) reaffirm that students with disabilities, like all other students of our land, must be able to access the necessary supports and services they need, including assistive technology which links and bridges to information technologies, to reach their educational goals.

UCPA's 155 affiliates in 44 states deliver in excess of $400 million of services annually to individuals with disabilities and their families. Our affiliates have much familiarity with applications of assistive technology and information technologies in the lives of babies, toddlers and children with disabilities and the critical role such technology plays in developing the potential of the child with a disability and in creating learning experiences that assist children with disabilities in reaching the same educational outcomes that children without disabilities strive for. **UCPA believes that community-based organizations can and should be playing a critical collaborative role in delivering educational technology services as part of the nation's National Technology Plan.**

UCPA stands ready to assist the U.S. Department of Education in implementing a national technology plan that includes addressing the needs of students with disabilities **as a priority** and in working with the collaborating agencies and the Congress to assure that significant resources are allocated for the technology needs of students with disabilities.

Sincerely,

Jenifer Simpson
Policy Associate
Community Services Division

STUDENTS WITH DISABILITIES IN THE NATIONAL TECHNOLOGY PLAN

The following three approaches underscore UCPA's recommendations:

- **access and equity needs of students with disabilities for assistive and information technology must be given priority in the development of the national education plan for technology.**

- **access needs for disability applications must be built into the technology infrastructure at the onset of any system development at the local, district, regional and state levels.**

- **requirements, including incentives for school-to-work, training and private sector initiatives, must be imposed on local school districts for access to educational technology by students with disabilities, with similar requirements also imposed on all other providers of ancillary services to students as appropriate (e.g., subcontractors providing transportation, literacy, recreation or other services and supports, or collaborations with the education system).**

SUMMARY OF SPECIFIC RECOMMENDATIONS BY UCPA

I. ACCESS AND EQUITY

A. Integrate Technology Needs of Children With Disabilities at Outset
B. The National Plan Must Emphasize that All Students Includes Students with the Full Range of Functional Differences
C. Develop Incentives and Mechanisms for Special Education and Regular Education Staff To Discover Technology-Based Solutions to Education Problems
D. Include Penalties for Not Including Students With Disabilities in Technology Initiatives
E. Develop Special Rates For Information Technology Usage If it is Accessible to Students with Disabilities
F. Build In Flexibility of Use.
G. Establish Speech Disability As A Priority in Technology Initiatives

II. PLANNING AND FINANCING THE SCHOOL-RELATED TECHNOLOGY INFRASTRUCTURE

H. Integrate the Expertise and Resources of Special Education Technology with General Education to Create Synergies
I. Ensure Maintenance and Oversight of Equipment
J. Develop Incentives For Special and Regular Education Staff to Work Together
K. Incorporate Efforts of Community-Based Organizations
L. In Developing Employment Initiatives Ensure Students With Disabilities are Included
M. Don't Repeat Private Sector Inaccessibility Modalities

III. PROFESSIONAL DEVELOPMENT

N. Training Must Include Disability Access Solutions
O. Develop Incentives for Incorporating Specialized Assistive Technology

IV. SOFTWARE AND CONTENT

P. Content Control Measures Must Not Cause Access Problems for Students With Disabilities
Q. Disability Access Includes all Personnel
R. Involve Software and Equipment Developers at Classroom Level

APPENDIX A Copies of letters and statements from UCPA affiliates, including parents of children with disabilities, regarding the National Educational Technology plan from Arkansas, Louisiana, Maryland, North Carolina, New York, Pennsylvania, Tennessee, Texas

APPENDIX B Summary of UCPA Discussion Recommendations

I. ACCESS AND EQUITY

A. Integrate Technology Needs of Children With Disabilities at Outset

UCPA believes it is critical to ensure the availability of assistive technology for children with disabilities as technology assists in reaching educational goals. For instance, Jerad Kratz in San Antonio TX was not able to begin to learn literacy skills until his parent got him a computer (See Appendix). His mother states that:

> "It was not until I got a computer and had it adapted at home and started working with him myself that I was able to convince the local school district that he had enough potential that they needed to work with him at school as well on academics and through using technology to do this."

UCPA recommends, therefore, that the national technology plan include a process where local school personnel must work directly with a parent of a child with a disability from the start, as soon as they enter school, to focus on how technology can bring out the academic potential in a child.

B. The National Plan Must Emphasize that All Students Includes Students with the Full Range of Functional Differences

In development of any educational technology plan, the education needs of students with disabilities must be considered inclusively with those of students without disabilities. ***UCPA urges that the plan must specifically state that ALL STUDENTS means students with all kinds of disabilities*** as well, and must be stated to mean "*students with functional differences in speech, hearing, vision, movement, manipulation, and interpretation of information across age and grade spectrums.*"

The intent would be for students with disabilities to have the same access to whatever educational technology that is to be provided equivalent to the access provided to students without disabilities.

C. Develop Incentives and Mechanisms for Special Education and Regular Education Staff To Discover Technology-Based Solutions to Education Problems

To encourage equal access to educational technology for students with disabilities, implementation would include developing incentives and mechanisms administratively for the special education department personnel to work and collaborate with regular education personnel at every level, and vice versa -- administratively and in the classrooms. This could be accomplished by means of technology forums that bring the special education teaching, administrative and related services persons into sessions with regular education personnel to discuss technology-based solutions across common education problems. Incentives for development of permanent settings and structures should acknowledge the history of segregation of students with disabilities and take proactive steps to deter perpetuation. ***UCPA urges that the national plan encourage school districts to develop collaborative technology ventures that target students with disabilities first as a way to create synergies in technology resource development and as a place to "test" new ideas, tools and settings as students with disabilities have the most to gain.***

D. Include Penalties for Not Including Students With Disabilities in Technology Initiatives

To further implement these synergies there needs to be developed penalties (disincentives) by the Secretary of Education for those instances where school districts fail to include students with disabilities

in their technology development initiatives. Penalties should include rescinding or limiting funds or removal of personnel that act as attitudinal barriers to change.

E. Develop Special Rates For Information Technology Usage If it is Accessible to Students with Disabilities

UCPA supports the concept that schools and other learning settings should be given subsidized telecommunications rates if such telecommunications services do not serve to exclude usage by a student with a disability. Schools should not be permitted to spend taxpayers' monies on telecommunications services, or equipment, that can't be used by all students. It is cost-inefficient to continually expect specialized adaptive equipment to be developed in order to access whatever it is easily accessed by the average user.

Software licensing practices should be addressed so that there is a special discounted rate for schools that would permit, for instance, a greater number of student users to explore a software application. Schools could be given a special user rate. Again, unless the software application is usable and accessible to students with disabilities it should not be purchased by any school department.

F. Build In Flexibility of Use.

Many learning tools can be made accessible to learners with special needs: for the visually impaired, a computer can have a voice output, where the computer says the letters and words as the person is typing, or tells him if he's hitting the tab key or the shift key, and so on. Another solution is to Braille keyboards. Or if sight is impaired make whatever is on the monitor larger by means of Zoom programs. For students with limited mobility, computers can be adapted by having expanded keyboards, 'sticky keys', being able to connect different mice and joysticks, able to connect touch windows on the monitors. Allowing keyboards to be placed wherever they need it also permits greater numbers of students to use the device. Also, allowing monitors to be moved wherever the student needs it is a way to accommodate disability.

The approach should be flexible. An application or piece of equipment that addresses the access needs of one student may be found to be useful to a student with another type of disability. For instance, voice outputted screen readers are a necessity for students with vision disability but can assist the child with a learning disability in learning how to read because of the redundancy of modality or multiple sensory output the child is receiving. As ramping all schools assists all other students in getting through door, so too does making available usable and accessible devices and equipment for students with severe disabilities assist other students. Promoting alternate or mainstream use of specialized technology will enrich the learning experience of children without disabilities. In fact, permitting great flexibility in usage of information technology materiel for persons with disabilities will make equipment generally more user friendly to students without disabilities.

UCPA recommends that the following tools and components be a standard part of the "shopping list" for educational technology purchased by school districts.

> *Remote control switches for use of computers and other office/school equipment; adaptive switches to turn on/off lights; telephone adaptations such as speaker phones, headsets, modems, TDDs or TTs (text telephones); reachers and grabbers; simple adaptions/fixtures for using office machines; magnifiers; adjustable furniture; adaptive computer software; page turners; lever door handles; communication boards; communications software; voice-activated software programs; telephones with audio and data transmission*

capability; telephones with wireless audio and data communication capabilities; electronic augmentative communication devices; computer and computer modem access in commonly used access forms such as ASCII; voice recognition systems; voice activated telephones; pointing and typing aids such as headpointers and mouthsticks; alternative switches to control lights and elevator doors and other access devices; electronic equipment which can be activated by sipping, puffing, movement of the eye, head, wrist, finger, or by remote or wireless means; alternative keyboards; keyguards or keyboard shields; large button telephones; joystick controls; automatic dialing, and other effective and efficient methods of assuring reasonable accommodation and access to telecommunication networks, switching services and similar services that allow a student with a disability to enjoy the same benefits and privileges of educational technology services that are made available to other students without speech, mobility or manual dexterity impairments.

G. Establish Speech Disability As A Priority in Technology Initiatives

Individuals with significant speech disabilities encounter major obstacles to education and employment in the United States. There are some 500-700,000 children and adults with cerebral palsy in the United States today. Further, an estimated 750,000 to 1.5 million Americans of all ages have severely limited speech which cannot be easily understood. Approximately 30 percent of persons with cerebral palsy are in this group, and 85 to 90 percent of all individuals with cerebral palsy have a speech disability of one kind or another. Others estimate there are another 3 million persons who lose speech capacity each year, either permanently or temporarily, as a result of traumatic brain injury, stroke or other accident or injury. Many of these individuals are students who must continue their education in order to avoid dependency and reach employment goals.

Technological solutions at the local classroom level could greatly dismantle the segregation, isolation and perception of incompetence such students experience. Including augmentative communication technologies at the local level in technology infrastructure building is critical for these students.

For instance, to make a computer really accessible for a student that uses an augmentative communication device, the computer and the communication device should be able to interface with a cable and a disk that includes the necessary interface software. With these commonly found pieces of equipment the student currently without speech can enter the dialogue electronically with their classmates. School technology budgets should routinely include such items as a priority for their students who have no clear speech or have garbled speech.

The Americans With Disabilities Act (ADA) and Sections 504 and 508 of the Rehabilitation Act reaffirm that individuals with disabilities, like all other citizens, have a right to free speech and effective communication. Increasing access to alternative and augmentative means of communication and its connection and relation to the information infrastructure can and should provide expanded opportunities for individual choice and control for students who currently are not heard at all in their classrooms.

Too often school districts continue to treated electronic communication devices as a luxury rather than a means to a constitutional right. This can be remedied if the national plan sets a priority to address this disability. ***UCPA recommends that Special Education departments be required by the national technology plan to develop assessments of this need by properly surveying students with disabilities for such technology items that will ensure the First Amendment rights of students with little or no clear speech so that they may benefit from the advances being developed in the overall technology education initiative.***

II. PLANNING AND FINANCING THE SCHOOL-RELATED TECHNOLOGY INFRASTRUCTURE

A. Integrate the Expertise and Resources of Special Education Technology with General Education to Create Synergies

It is essential that the needs of children with disabilities for technology should be integrated into any national plan not as an add-on or afterthought but as all systems develop (i.e., as an infrastructure issue, for example, in training of teachers, in wiring of classrooms, in provision of computer equipment) as a part of the general planning process. This would include developing ways to integrate the expertise found in existing assistive technology resources, divisions or loci often found within special education departments and integrating them with the resources, divisions or loci that have focused on more traditional educational technology, e.g., audio visual departments, computer units or other resource rooms dedicated to specialized technology that have tended to be directed towards students without disabilities.

This is necessary or students with disabilities will be left out and fall behind. Additionally, in the future any retrofitting of equipment or systems will be twice as expensive if the needs of students with diverse disabilities are not considered in the development phases. It is important to remember that a particular technology, e.g., a spelling program on a personal computer that is operated using a touch screen, may be a luxury or fun for the average kid but for a child with disabilities, such as with a deficit in fine motor control, the touch screen technology is the only way to operate the program and is therefore a necessity. ***UCPA urges that this concept of 'technology necessity' for students with disabilities, versus 'technology fun and exploration' be emphasized in the national educational technology plan.***

B. Ensure Maintenance and Oversight of Equipment

Incorporating systematic maintenance and oversight of equipment and services is essential to this effort as a way to reduce the overall cost of implementation. Too often, once an item breaks down or needs a particular part, it sits unused. For children with disabilities, this is abominable; for instance, if a $10,000 electronic augmentative communication device purchased for a child with speech disabilities does not work because there is no battery charger or someone forgot to order the software, the school district loses the value of that child's contribution in the classroom and in the future.

UCPA urges that the national plan emphasize to school districts the importance in budgetary development processes for educational technology, the importance of included costs of maintenance and oversight of equipment as it pertains the needs and usage by students with disabilities.

C. Develop Incentives For Special and Regular Education Staff to Work Together

The national plan should develop incentives for staff in regular education departments to work with assistive technology resource centers and special education personnel familiar with assistive technology within school systems to further this objective. Dissolving the bureaucratic estrangement of special education from regular education programs is critical to ensuring efficient delivery of technology. However, it is also important to not subvert allocations developed in budgets for specialized equipment, e.g., for screen readers and braille printers, or allocated for communication devices, into a general budget without maintenance of the effort. ***UCPA urges incentives for personnel who 'do it right', that is, who work collaboratively across specialties.***

D. Incorporate Efforts of Community-Based Organizations

The national plan should also consider incentive grants with local community-based non-profit entities to bring into the mainstream of educational activity what has been developed specifically for persons with disabilities by disability-related service organizations. The national technology plan must require local school agencies to work with community-based non-profit agencies that have developed or pioneered technology resources and applications for children with disabilities.

This will ensure that any specialized technology development for students with disabilities is incorporated into the general education systems so that the local school district will not 're-invent the wheel' and can build on the work of the non-profits by incorporating it into their initiatives.

For instance, in Westchester County, NY, seventeen year old David Sheeky, who has severe disabilities as a result of cerebral palsy, uses an electronic communication device and a wheelchair among several other tools necessary to meet his educational goals. David's parents emphasize the benefits for David from these tools as he is now able to participate in social, recreational and religious events previously denied him, including new levels of participation in school activities. (See Appendix).

UCPA notes that the Sheeky family had to develop a community fund raising effort to fund, acquire and to demonstrate the value of such equipment despite the wealth of resources in the school district locally. Currently, the local school district has paid only for the 'Intellikeys' keyboard David uses to access his home computer but the essential equipment he needed was paid for through non-profit community agency efforts.

UCPA believes that community-based organizations can and should be playing a critical collaborative role in delivering educational technology services as part of the nation's National Technology Plan.

E. In Developing Employment Initiatives Ensure Students With Disabilities are Included

If partnerships are developed with the private sector in employment initiatives, applications, students with disabilities must be part of the effort and should be targetted for initiatives as the unemployment rate for severely disabled persons now exceeds 67 percent. ***UCPA recommends inclusion of private sector employment collaborative initiatives that specifically address fulfilling work, and transition to work, for students with disabilities.***

F. Don't Repeat Private Sector Inaccessibility Modalities

School districts need to be aware at the outset of developing their technology infrastructure that Graphical User Interfaces to access information resources via the Internet or other commonly-used networks, may be easy and fun to learn for average children, but create enormous barriers for children with vision disabilities or for children who can only access information using a keyboard and who cannot operate mouse-driven point and click technology.

Networks that are set up based on Windows only application are likely to exclude children with sensory disabilities unless especial care is taken in the purchase of network software and applications are properly assessed to see if a particular functional disability cannot access the network/program. For instance, if a network service requires call-in, such as for home tutoring services, will the relay system work with the service.

Likewise, if an information device/appliance is set up so that children in wheelchairs can't roll up to the

keyboard or roll into the room with the personal computers, or the keyboard cannot be reached by children with other motor disabilities, the device is useless for all students. ***UCPA recommends that the National Technology Plan direct school districts to assess all purchases and collaborative activities for equipment and services through a 'disability perspective' to ensure that it will work for all students.***

III. PROFESSIONAL DEVELOPMENT

A. Training Must Include Disability Access Solutions

Teachers that are to be provided with training on information technology for school settings must be required to address the accessibility and usability needs of students with the full range of disabilities (vision, hearing, speech, motor, cognitive and manipulation of information.) As part of any training curriculum teachers must be required to know about already-known disability access solutions which are commonly found in workplaces and in other settings that have provided accommodation to disability. These would include for instance, knowledge about "stickey key" software, touch screens, split-keyboards, voice output screen readers, Braillers, and the myriad of software that has been specially-developed for children with cognitive and learning disabilities. UCPA recommends inclusion of training for professionals that addresses current and developing information technology accommodations for students, and other personnel, with disabilities.

B. Develop Incentives for Incorporating Specialized Assistive Technology

Teachers should be given incentives for finding ways to incorporate into the classroom the specialized assistive technology (software and equipment) that has been developed for students with disabilities. Incentives for broadening these specialized applications for use by average students could include professional certifications or other merit-based inducements commonly utilized by the private sector, such as cash bonuses or professional prizes. Such recognition could be an incentive also for devising an innovative application. An incentive could be a cash bonus for ensuring that all the children with learning or other disabilities in a given school district know how to run a number of programs on the computer. By working first with students with learning or other disabilities as a priority, a teacher could learn first-hand.

UCPA recommends that the National Technology Education Plan should direct organizations that train, license or accredit professionals to recognize the importance of technology links between assistive technology and educational technology.

IV. SOFTWARE AND CONTENT

A. Content Control Measures Must Not Cause Access Problems for Students With Disabilities

There is always the possibility of students accessing inappropriate materials over networks and any ways to avoid this are difficult to solve. Of prime importance is to NOT create greater access problems for students with disabilities as a result of creating barriers to entry to computer systems or networks through controlled access solutions. Although use of passwords is often the solution to this problem, students will always find out what they are. It is critical that students with motor disabilities, for instance, not be put at a disadvantage due to having to key in more letters or numbers due to such content control measures..

Alternatively, an alert system that sounds a beeper or siren whenever the student is about to get his hands

on inappropriate materials might be devised. However, there should be a visual output/readout for this so that students who are deaf are also aware they have "crossed the boundary".

Permission-granting mechanisms whereby students have to request access to equipment or network services by going to a certain office or individual must incorporate requests made by students with disabilities or they will be discriminatory processes. For instance, students with hearing disabilities must be able to utilize sign language interpreters, or students who use wheelchairs or augmentative communication devices or personal care attendants must be able to access the permission granted mechanism the same way as do students without disabilities.

UCPA urges that great care be undertaken with Content Control Mechanisms to ensure that electronic barriers are not created for students with disabilities.

B. Disability Access Includes all Personnel

Again, the national technology plan should build in and offer incentives to the school, library, and to personnel who wish to purchase, devise or implement cost-effective software and equipment solutions that address accessibility and usability by persons with disabilities. It should be noted here that disability accessibility and usability is not only a classroom problem; teachers and administrative personnel likewise may have disabilities and as more and more procedures 'go electronic' the employees' needs for disability access become more pressing. Under Titles II and III of P.L. 101-336, The Americans With Disabilities Act, entities such as school systems, are required to make accommodations to their employees with disabilities.

Under Title II, for instance, discrimination on the basis of disabilities is prohibited in all programs, activities and services provided or made available by state and local governments regardless of whether or not those entities receive federal financial assistance.

UCPA recommends that Disability Access be considered across departments and administration as other personnel, other than students, may be affected by lack of electronic access, including administrative and support staff and related services personnel who may themselves experience disability.

C. Involve Software and Equipment Developers at Classroom Level

To stimulate the development of high-quality learning and assessment tools, the steps that should be taken should include a team assessment approach involving visiting different school districts and seeing what is being used, what is needed, and how can it be improved. Such a team should comprise software and equipment developers, teachers, students **and individuals with expertise in assistive technology disability access solutions.**

By bringing in software and equipment developers to classrooms, they may learn a great deal from experiencing the frustration of not being able to access the computer, or not being able to work the mouse, or not being able to see the picture on the monitor as experienced by a student with a disability. The purpose of the team approach would be to discourage the thinking that says "disability access is someone else's problem to solve."

UCPA recommends that disability access approaches to educational technology be broad-based if private sector involvement is included.

APPENDIX A

Copies of letters and statements from UCPA affiliates
including parents of children with disabilities

From the states of:

ARKANSAS
LOUISIANA
MARYLAND
NORTH CAROLINA
NEW YORK
PENNSYLVANIA
TENNESSEE
TEXAS

APPENDIX B

Summary of UCPA Discussion Recommendations

ACCESS AND EQUITY

UCPA recommends, therefore, that the national technology plan include a process where local school personnel must work directly with a parent of a child with a disability from the start, as soon as they enter school, to focus on how technology can bring out the academic potential in a child.

UCPA urges that the plan must specifically state that ALL STUDENTS means students with all kinds of disabilities.

UCPA urges that the national plan encourage school districts to develop collaborative technology ventures that target students with disabilities first as a way to create synergies in technology resource development and as a place to "test" new ideas, tools and settings as students with disabilities have the most to gain.

UCPA recommends that the following tools and components be a standard part of the "shopping list" for educational technology purchased by school districts.

Remote control switches for use of computers and other office/school equipment; adaptive switches to turn on/off lights; telephone adaptations such as speaker phones, headsets, modems, TDDs or TTs (text telephones); reachers and grabbers; simple adaptions/fixtures for using office machines; magnifiers; adjustable furniture; adaptive computer software; page turners; lever door handles; communication boards; communications software; voice-activated software programs; telephones with audio and data transmission capability; telephones with wireless audio and data communication capabilities; electronic augmentative communication devices; computer and computer modem access in commonly used access forms such as ASCII; voice recognition systems; voice activated telephones; pointing and typing aids such as headpointers and mouthsticks; alternative switches to control lights and elevator doors and other access devices; electronic equipment which can be activated by sipping, puffing, movement of the eye, head, wrist, finger, or by remote or wireless means; alternative keyboards; keyguards or keyboard shields; large button telephones; joystick controls; automatic dialing, and other effective and efficient methods of assuring reasonable accommodation and access to telecommunication networks, switching services and similar services that allow a student with a disability to enjoy the same benefits and privileges of educational technology services that are made available to other students without speech, mobility or manual dexterity impairments.

UCPA recommends that Special Education departments be required by the national technology plan to develop assessments of this need by properly surveying students with disabilities for such technology items that will ensure the First Amendment rights of students with little or no clear speech so that they may benefit from the advances being developed in the overall technology education initiative.

PROFESSIONAL DEVELOPMENT

UCPA recommends that the National Technology Education Plan should direct organizations that train, license or accredit professionals to recognize the importance of technology links between assistive technology and educational technology.

PLANNING AND FINANCING THE SCHOOL-RELATED TECHNOLOGY INFRASTRUCTURE

UCPA urges that this concept of 'technology necessity' for students with disabilities, versus 'technology fun and exploration' be emphasized in the national educational technology plan.

UCPA urges that the national plan emphasize to school districts the importance in budgetary development processes for educational technology, the importance of included costs of maintenance and oversight of equipment as it pertains the needs and usage by students with disabilities.

UCPA urges incentives for personnel who 'do it right', that is, who work collaboratively across specialties.

UCPA believes that community-based organizations can and should be playing a critical collaborative role in delivering educational technology services as part of the nation's National Technology Plan.

UCPA recommends inclusion of private sector employment collaborative initiatives that specifically address fulfilling work, and transition to work, for students with disabilities.

UCPA recommends that the National Technology Plan direct school districts to assess all purchases and collaborative activities for equipment and services through a 'disability perspective' to ensure that it will work for all students.

SOFTWARE AND CONTENT

UCPA urges that great care be undertaken with Content Control Mechanisms to ensure that electronic barriers are not created for students with disabilities.

UCPA recommends that Disability Access be considered across departments and administration as other personnel, other than students, may be affected by lack of electronic access, including administrative and support staff and related services personnel who may themselves experience disability.

UCPA recommends that disability access approaches to educational technology be broad-based if private sector involvement is included.